Appl. No. : **10/074,534**
Filed : **February 11, 2002**

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 4/9/02

By: Joseph J. Mallon

Joseph J. Mallon
Registration No. 39,287
Attorney of Record
Customer No. 20,995
(619) 235-8550

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

[0001] This application claims priority to U.S. Provisional Application No. 60/268,337, filed February 12, 2001; U.S. Provisional Application No. 60/279,256, filed March 27, 2001; U.S. Provisional Application No. 60/311,609, filed August 9, 2001; U.S. Provisional Application No. 60/323,649, filed September 19, 2001; U.S. Provisional Application No. 60/332,696, filed November 13, 2001; U.S. Provisional Application No. 60/333,724, filed November 28, 2001; and U.S. Provisional Application No. 60/340,454, filed December 7, 2001; all of which are hereby incorporated by reference in their entireties. This application is related to, and incorporates by reference in their entireties, co-owned and co-pending U.S. Patent Application Serial Numbers: 10/074,563; 10/074,149; 10/074,722; 10/074,633; and 10/074,564, all of which were filed on February 11, 2002.

[0107] A series of Si-containing films were deposited onto a SiO_2 substrate (without a nucleation layer) at a pressure of 40 torr using trisilane and germane. The trisilane flow rate was constant at 77 sccm (hydrogen carrier, bubbler) for the examples of Table **[9]** 10. Germane flow (10% germane, 90% H_2) and deposition temperature were varied as shown in Table **[9]** 10. Germanium concentration (atomic %) and thickness of the resulting SiGe films were determined by RBS, and surface roughness was determined by atomic force microscopy (AFM). The results shown in Table **[9]** 10 demonstrate that highly uniform films can be prepared over a range of temperatures and flow rate conditions, particularly over a large range of germane concentration. High deposition rates are achieved at relatively low temperatures without sacrificing uniformity.

Heading that appears after paragraph [0107]:

TABLE **[9]** 10

IN THE ABSTRACT:

Chemical vapor deposition processes utilize higher order silanes and germanium precursors as chemical precursors. The processes have high deposition rates yet produce more

uniform films, both compositionally and in thickness, than films prepared using conventional chemical precursors. In preferred embodiments, higher order silanes are **[trisilane is]** employed to deposit SiGe-containing films that are useful in the semiconductor industry in various applications such as transistor gate electrodes.

IN THE CLAIMS:

1. (Amended) A process for depositing a non-single crystalline SiGe-containing material onto a surface, comprising:

providing a chemical vapor deposition chamber having disposed therein a substrate**[,]** ;

introducing a gas comprised of a higher-order silane and a germanium precursor to the chamber; and

depositing a non-single crystalline SiGe-containing film onto the substrate.

20. (Amended) A process for making a graded SiGe-containing film, comprising:

providing a substrate disposed within a CVD chamber**[,]** ; and

depositing a graded SiGe-containing film onto the substrate by thermal CVD using a deposition gas comprising amounts of trisilane and a germanium precursor that are varied during deposition.